

REMARKS

1. Status of the claims

Claims 45-50, 55, and 57-60 are now canceled. Claims 30, 44, 54, and 61-65 are currently pending.

2. Support for Amendments

The amendments are fully supported in the claims as previously filed, and thus the amendments do not constitute new matter.

3. Title

The Applicants have herewith submitted an amended title, as required by the patent office.

4. Claim Rejections under 35 U.S.C. §112, Second Paragraph

The Patent Office rejected claims 30, 44-50, 54-55, and 57-65 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Specifically, the Patent Office asserted that the phrase "on and/or in" rendered the claims indefinite. The Applicants traverse this rejection, but have nonetheless have amended the claims to obviate the rejection. Therefore, the Applicants respectfully request reconsideration and withdrawal of the rejection.

5. Claim Rejections under 35 U.S.C. §103(a)

The Office Action rejected claims 30, 44-50, 54-55, and 57-65 under 35 U.S.C. §103(a) based on the assertion that the claims are obvious over Akong et al. (P/N 5,670,113) in view of Lee et al. (P/N 5,627,908), St. George-Hyslop et al. (P/N 6,020,143), Salpeter et al. (J. Cell Biol. 1981 Vol. 91:240246), and *In re Venner*. The Applicants respectfully traverse the rejection.

In order to establish a *prima facie* case of obviousness the Examiner must establish that the prior art references alone or in combination must teach or suggest *all* the claim limitations.

MPEP § 706.02(j).

Claims 45-50, 55, and 57-60 were canceled, thus obviating their rejection.

A machine readable storage medium comprising a program containing a set of instructions for causing a cell screening system to execute procedures for detecting the distribution of one or more cellular macromolecule of interest between a cell cytoplasm and a cell membrane in individual cells. Such a machine readable storage medium is neither taught nor suggested by the combination of references, which do not teach or suggested methods, or machine readable storage medium, for analyzing distribution of cellular macromolecules of interest between cell membrane and cell cytoplasm in individual cells. The cited Akong and Lee references merely teach ways to detect cell membranes and cell cytoplasm in cells. St. George-Hyslop simply speculates that compounds can be screened by looking at intracellular localization of presenilins in the Golgi and endoplasmic reticulum, but does not teach the recited limitations in the present claims. Finally, the cited Salpeter reference teaches electron microscope autoradiography, and does not teach anything at all about fluorescent reporters, nor about using fluorescent reporter molecules to analyze distribution of a cellular component of interest between the cell cytoplasm and the cell membrane. Thus, the combination of the cited references does not teach or suggest at least the following limitations of claim 30:

- creating a cell membrane mask and a cell cytoplasm mask from the plurality of fluorescent reporter molecules;

- determining an intensity of the fluorescent signals from the fluorescent reporter molecules that report on the one or more cellular macromolecule of interest within the cell membrane mask and the cell cytoplasm mask in the individual cells in response to contacting the cells with a test stimulus;

- comparing the intensity of the fluorescent signals from the fluorescent reporter molecules that report on the one or more cellular macromolecule of interest within the cell membrane mask and the cell cytoplasm mask in the individual cells in response to contacting the cells at a first time point with a test stimulus to:

- i) an intensity of fluorescent signals from the fluorescent reporter molecules that report on the one or more cellular macromolecule of interest within the cell membrane mask and the cell cytoplasm mask in the individual cells in response to contacting the cells with the test stimulus from at least a second time point; and/or

ii) an intensity of fluorescent signals from the fluorescent reporter molecules that report on the one or more cellular macromolecule of interest within the cell membrane mask and the cell cytoplasm mask in the individual cells that have not been contacted with the test stimulus; and

-determining the effect of the test stimulus on the distribution of the one or more cellular macromolecule of interest between the cell membrane and the cell cytoplasm in the individual cells as a function of the intensity of the fluorescent signals from the fluorescent reporter molecules that report on the one or more cellular macromolecule of interest within the cell membrane mask and the cell cytoplasm mask in the individual cells in response to the test stimulus.

Thus, the combination of cited references fails to teach all (or even many) of the limitations of claim 30, and thus does not meet the requirements for establishing a case of prima facie obviousness under MPEP § 706.02(j). Similarly, the dependent claims recite further limitations on claim 30, which are also not taught or suggested by the combination of the cited references. Therefore, the Applicants respectfully request reconsideration and withdrawal of this rejection.


Based on the foregoing, the Applicants believe that the application is ready for allowance. If the Patent Office believes that a telephone or personal interview would expedite prosecution of the instant application, the Patent Office is invited to call the undersigned attorney at (312) 913-2106.

Respectfully Submitted,

Date:

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By:



David Harper
Reg. No. 42,636
**McDonnell, Boehnen
Hulbert & Berghoff**
300 South Wacker Drive
Chicago, IL 60606